

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P. O. Box 7599  
Loveland, Colorado 80537-0599



ATTORNEY DOCKET NO. 10004229-01

\$  
DAC  
ZMW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Richard P. Schneider, et al.

Serial No.: 09/680726

Examiner: Diaz, Jose R

Filing Date: October 5, 2000

Group Art Unit: 2815

Title: A VCSEL Device With Improved Modal Properties

COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria VA 22313-1450

PETITION FOR WITHDRAWAL OF ABANDONMENT

Sir:

1. Applicant petitions that the abandonment set forth in the notice mailed by the office on 02-24-05 be withdrawn.
2. Submitted herewith is:
  - ☒ A copy of the page of the response faxed on 8 November 2004 showing a Certificate of Facsimile executed on 8 November 2004.
  - ☒ A copy of the auto reply facsimile showing the U.S.PTO receipt stamp dated 11/8/ 2004 6:17:06 PM (EST) |
  - ☒ A copy of the complete response previously filed.
  - ☒ A copy of the attorney's Statement in which the item corresponding to the response referred to above is checked.
3. Please proceed with further examination of this application on the basis of:
  - ☐ The original papers filed, which have now reached the appropriate area of the PTO, and/or
  - ☒ The attached copy of the papers originally filed.

Please charge the required fee set forth in 37 CFR 1.17(h) of \$130.00 to Deposit Account 50-1078. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 50-1078 pursuant to 37 CFR 1.25.

Respectfully submitted,

Richard P. Schneider, et al.

By Pamela Lau Kee  
Pamela Lau Kee  
Attorney/Agent for Applicant(s)

Reg. No. 36,184

Date: 17 March 2005

Telephone No. 408 553 3059

☒ I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450.

Date of Deposit:

OR

☐ I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Date of Facsimile:

Typed Name: Ann Marie Radcliffe

Signature: Ann Marie Radcliffe



A10004229-1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR(S): Schneider, *et al.*

EXAMINER: Jose Diaz

SERIAL NO: 09/680,726

GROUP ART UNIT: 2815

FILING DATE: 5 October 2000

TITLE: VCSEL DEVICE WITH IMPROVED MODAL PROPERTIES

THE COMMISSIONER OF PATENTS  
P.O. Box 1450,  
Alexandria, VA 22313-1450

**Petition under 37 CFR 1.181 to Withdraw the Holding of Abandonment**

Dear Sir:

Applicants include in this correspondence:

- a Declaration of Pamela Lau Kee under 37 CFR 1.181
- a copy of the Office response dated 8 November 2004 (Exhibit A)
- a copy of the Auto Reply Facsimile dated 8 November 2004
- a Notice of Abandonment dated 24 February 2005

Applicants respectfully request that the Withdrawal of the holding of Abandonment in light of the evidence presented.

Respectfully submitted,

Schneider, et al

*Pamela Lau Kee*

Pamela Lau Kee  
Patent Reg. No. 36,184

*17 March 2005*

Agilent Technologies  
Intellectual Property Administration  
Legal Department, M/S DL-429  
815 SW 14 th Street  
Loveland CO 80537  
(408) 553-3059

03/23/2005 EABUBAK1 00000041 501078 09680726

01 FC:1464 130.00 DA



A10010167

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR(S): Schneider, *et al.*

EXAMINER: Jose Diaz

SERIAL NO: 09/680,726

GROUP ART UNIT: 2815

FILING DATE: 5 October 2000

TITLE: VCSEL DEVICE WITH IMPROVED MODAL PROPERTIES

THE COMMISSIONER OF PATENTS  
WASHINGTON, D.C. 20231

Declaration of Pamela Lau Kee under 37 CFR 1.181

I, Pamela L. Kee, hereby make the following declarations.

1. Presently, I am a Senior Patent Agent in the Legal Department of Agilent Technologies, Inc. (Agilent), the assignee of the above-mentioned patent application ('726 Application).
2. Agilent received an Office Action having a mailing date of 13 July 2004 (the Notice). On 8 November 2004, I responded to the Notice (Exhibit A) and authorized charging a month extension to the Agilent Deposit Account Number. As shown in "Auto Reply Facsimile Transmission" (Exhibit B), Ann Marie Radcliffe signed the "Certificate of Mailing and Transmission" on 8 November 2004. The date of receipt of Exhibit B is 8 November 2004.
3. On 1 March 2005, I received a Notice of Abandonment (Exhibit C) having a mailing date of 24 February 2005 noting that the response requested in the Notice was not received by the USPTO.
4. I further declare that all of the statements made herein are of my own knowledge arising from my investigation and involvement with this matter, are true, and that all statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectively submitted,

Dated: 17 March 2005

Pamela Lau Kee  
Pamela Lau Kee  
Reg. No. 36,184

Attachments: Exhibit A (Office response dated 8 November 2004)  
Exhibit B (Auto Reply Facsimile dated 8 November 2004)  
Exhibit C (Notice of Abandonment)

(EXHIBIT A)

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Richard P. Schneider, et al.

Serial No.: 09/680,726

Examiner: Diaz, Jose R.

Filing Date: 10/5/2000

Group Art Unit:

Title: VCSEL Device With Improved Modal Properties

COMMISSIONER FOR PATENTS  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

- (X) Response/Amendment ( ) Petition to extend time to respond  
( ) New fee as calculated below ( ) Supplemental Declaration  
( ) No additional fee (Address envelope to "Mail stop Non-Fee Amendments")  
( ) Other: \_\_\_\_\_ (fee \$ \_\_\_\_\_)

CLAIMS AS AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS	30	MINUS	20	= 10	X \$18	\$ 180
INDEP. CLAIMS	5	MINUS	4	= 1	X \$88	\$ 88
[ ] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ \$300	\$ 0
EXTENSION FEE	1ST MONTH \$110.00	2ND MONTH \$430.00	3RD MONTH \$980.00	4TH MONTH \$1530.00		\$ 110
OTHER FEES						\$
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$ 378

Charge \$ 378 to Deposit Account 50-1078. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 50-1078 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 50-1078 under 37 CFR 1.16, 1.17, 1.19, 1.20 and 1.21. A duplicate copy of this sheet is enclosed.

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Date of Facsimile: 8 November 2004

Typed Name: Ann Marie Radcliffe

Signature: Ann Marie Radcliffe

Respectfully submitted,

Richard P. Schneider, et al.

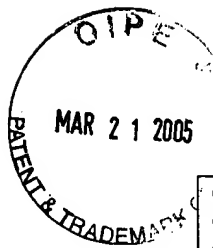
By Pamela Lau Kee

Pamela Lau Kee

Attorney/Agent for Applicant(s)

Reg. No. 36,184

Date: 8 November 2004



A10004229-1

<p>( ) I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231.</p> <p>Date of Deposit: Typed Name: Signature:</p>	<p>(X) I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office on the date shown below.</p> <p>Date of Facsimile: <i>8 November 2004</i> Typed Name: Ann Marie Radcliffe Signature: <i>Ann Marie Radcliffe</i></p>
---	--

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Inventor(s):** Richard P. Schneider, et al.    **Examiner:** Diaz, Jose R.  
**Serial No.:** 09/680,726    **Group Art Unit:**  
**Filing Date:** 10/5/00  
**Title:** VCSEL Device With Improved Modal Properties

### Amendment

THE ASSISTANT COMMISSIONER OF PATENTS  
WASHINGTON, D.C. 20231

Dear Sir:

In an Office Action, dated 13 July 2004, having a three-month statutory period for response ~~exp~~iring 13 October 2004, please find enclosed a transmittal letter authorizing a one-month extension of time. Please amend the application as follows:

### Status of the Claims

- 1 -2. (Cancelled)
3. (Previously Presented) A vertical cavity surface-emitting laser comprising:  
a device structure, having a height  $z$  and an aperture, including  
    an active layer having an upper and lower surface, and  
    upper and lower distributed Bragg reflectors on the upper and lower  
surfaces of the active layer and adjacent thereto;  
a layer having a non-planar surface within the device structure, positioned at  
height  $x$ , where  $0 \leq x < z$ , between heights  $x$  and  $z$ ;  
contacts for applying a voltage across the active region;  
a light emission property that varies within the aperture, wherein the light  
emission property enables higher order spatial modes; and  
    wherein the refractive index varies in the plane perpendicular to light output and  
the light output is in spatially fixed modes.
4. (Original) A vertical cavity surface-emitting laser, as defined in claim 3,  
wherein the refractive index has a lengthscale on the order of the lasing wavelength.
5. (Original) A vertical cavity surface-emitting laser, as defined in claim 3,  
further comprising a substrate having a first side adjacent to the lower distributed Bragg  
reflector.
6. (Original) A vertical cavity surface-emitting laser, as defined in claim 5,  
further including a texturing layer interposing the substrate and the device structure,  
wherein the non-planar layer is the texturing layer.
7. (Original) A vertical cavity surface-emitting laser, as defined in claim 6,  
wherein the texturing layer is patterned.

8. (Original) A vertical cavity surface-emitting laser, as defined in claim 5, wherein the non-planar layer is a layer within at least one of the upper and lower distributed Bragg reflectors.
9. (Original) A vertical cavity surface-emitting laser, as defined in claim 5, wherein the layer within at least one of the upper and lower distributed Bragg reflectors is patterned.
10. (Original) A vertical cavity surface-emitting laser, as defined in claim 5, wherein non-planar layer is a first surface of the substrate adjacent the lower Bragg reflector.
11. (Original) A vertical cavity surface-emitting laser, as defined in claim 10, wherein the first surface is patterned.
12. (Previously Presented) A vertical cavity surface-emitting laser, as defined in claim 5, wherein the non-planar layer introduces a phase mismatch in the device structure.
13. (Original) A vertical cavity surface-emitting laser, as defined in claim 12, wherein the non-planar layer is a layer within at least one of the upper and lower distributed Bragg reflectors.
14. (Original) A vertical cavity surface-emitting laser, as defined in claim 13, wherein the layer within at least one of the upper and lower distributed Bragg reflectors is patterned.
15. (Previously Presented) A vertical cavity surface-emitting laser, as defined in claim 5, further comprising a planarizing plane within the device structure, positioned at height  $y$ , where  $x < y < z$ .

16. (Original) A vertical cavity surface-emitting laser, as defined in claim 15, between heights  $x$  and  $y$ , the refractive index varies in the plane perpendicular to the light output.

17. (Original) A vertical cavity surface-emitting laser, as defined in claim 15, wherein the refractive index has a lengthscale on the order of the lasing wavelength.

18. (Original) A vertical cavity surface-emitting laser, as defined in claim 15, further comprising a substrate having a first surface adjacent to the lower distributed Bragg reflector.

19. (Original) A vertical cavity surface-emitting laser, as defined in claim 18, further including a texturing layer interposing the substrate and the device structure, wherein the non-planar layer is the texturing layer.

20. (Original) A vertical cavity surface-emitting laser, as defined in claim 19, wherein the texturing layer is patterned.

21. (Original) A vertical cavity surface-emitting laser, as defined in claim 19, wherein the non-planar layer is a layer within at least one of the upper and lower distributed Bragg reflectors.

22. (Original) A vertical cavity surface-emitting laser, as defined in claim 18, wherein the layer within at least one of the upper and lower distributed Bragg reflectors is patterned.

23. (Original) A vertical cavity surface-emitting laser, as defined in claim 18, wherein non-planar layer is a first surface of the substrate adjacent the lower Bragg reflector.

24. (Original) A vertical cavity surface-emitting laser, as defined in claim 23, wherein the first surface is patterned.



25. (Original) A vertical cavity surface-emitting laser, as defined in claim 15, wherein the non-planar layer introduces a phase mismatch in the device structure.

26. (Original) A vertical cavity surface-emitting laser, as defined in claim 25, wherein the non-planar layer is a layer within at least one of the upper and lower distributed Bragg reflectors.

27. (Original) A vertical cavity surface-emitting laser, as defined in claim 25, wherein the layer within at least one of the upper and lower distributed Bragg reflectors is patterned.

28. (Previously Presented) A method for manufacturing a vertical cavity surface emitting laser comprising the steps of:

preparing a substrate such that there is a layer having a textured surface having a light emission property that varies within the aperture, wherein the light emission property enables higher order spatial modes;

depositing a lower distributed Bragg reflector;

depositing an active layer;

depositing an upper distributed Bragg reflector; and

fabricating electrical contacts for applying a voltage across the active layer.

29. (Original) A method for manufacturing a vertical cavity surface emitting laser, as defined in claim 28, further comprising the step of removing the substrate after the step of fabricating electrical contacts.

30. (Previously Presented) A method for manufacturing a vertical cavity surface emitting laser comprising the steps of:

depositing a lower distributed Bragg reflector having a layer having a textured surface having a light emission property that varies within the aperture, wherein the light emission property enables higher order spatial modes; and;

depositing an active layer;

depositing an upper distributed Bragg reflector; and

fabricating electrical contacts for applying a voltage across the active layer.

31. (Previously Presented) A method for manufacturing a vertical cavity surface emitting layer comprising the steps of:

depositing a lower distributed Bragg reflector;

depositing an active layer having a layer having a textured surface having a light emission property that varies within the aperture, wherein the light emission property enables higher order spatial modes; and;

depositing an upper distributed Bragg reflector; and

fabricating electrical contacts for applying a voltage across the active layer.

32. (Previously Presented) A method for manufacturing a vertical cavity surface emitting layer comprising the steps of:

depositing a lower distributed Bragg reflector;

depositing an active layer;

depositing an upper distributed Bragg reflector having a layer having a textured surface having a light emission property that varies within the aperture, wherein the light emission property enables higher order spatial modes; and; and

fabricating electrical contacts for applying a voltage across the active layer.

### Remarks

Claims 3-32 were rejected under 35 U.S.C. §102(e) as being anticipated by Peake *et al.* (U.S.P.N. 6,728,289).

#### 35 U.S.C. §102(e) – claims 3-32

Claims 3-32 were rejected under 35 U.S.C. §102(e) as being anticipated by Peake *et al.* (U.S.P.N. 6,728,289).

Peake was cited for disclosing a layer having a non-planar microstructure (102) (col. 5, lines 57-65). The Examiner suggested that the non-planar microstructure was equivalent to the non-planar surface taught by the Applicants.


A “non-planar microstructure” is defined to have a top surface that includes one or more regions which are curved in at least one direction. One example of a non-planar microstructure is a microlens. A “microlens” is a substantially circular lens having a diameter less than 1 millimeter. (‘289, col. 3, lines 25-35). These microlenses are concentrically symmetric to improve spatial mode performance (‘289, col. 8, lines 29-37). Specifically, Peake teaches microlenses that are compatible to coupling to *single mode fibers* (‘289, col. 6, lines 59-64). These structures enhance the **fundamental mode operation** of the VCSEL due to the increased cavity losses of the higher order spatial modes. This fundamental mode is selected as the lasing mode of the cavity (‘289, col. 8, lines 49-54). Nowhere does Peake suggest or teach introducing a light emission property that *enables higher order spatial modes*. In fact, Peake teaches away from the present invention as the fundamental mode is selected as the lasing mode of the cavity.

In distinct contrast to the prior art cited, Applicants introduce a non-planar interface to **enable higher order optical modes**. The lobes of high optical intensity that correspond to the spatial texturing (page 8, lines 9-19). Thus, the light emission property **enables** higher order spatial modes. Independent claims 3, 30, 31, and 32 now recite that the “light emission property enables higher order spatial modes.” No new matter is being added to this amendment. Dependent claims 4-29 are believed patentable based on the allowability of independent claim 3. The rejection under 35 U.S.C. 102(e) is believed to be overcome.

### Conclusion

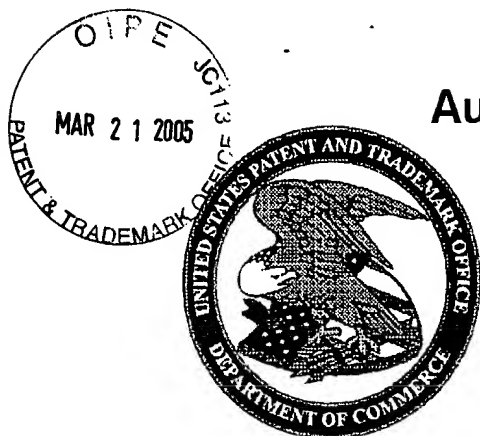
If the Examiner has any further questions or would like to discuss this application in more detail, he is invited to call the applicants' agent at the telephone number given below. The applicants respectfully suggest that the claims presently in the application are distinct over the prior art and that the application is now in condition for allowance. Accordingly, the applicants solicit favorable action.

Respectfully submitted,  
Richard P. Schneider, et al.

  
Pamela Lau Kee  
Patent Reg. No. 36,184

*8 November 2004*

**Agilent Technologies**  
Intellectual Property Administration  
Legal Department, M/S DL-429  
815 SW 14 th Street  
Loveland CO 80537  
(408) 553-3059



## Auto-Reply Facsimile Transmission

TO: Fax Sender at 408 553 3063

Fax Information

Date Received:

Total Pages:

11/8/2004 6:17:06 PM [Eastern Standard Time]  
9 (including cover page)

**ADVISORY:** This is an automatically generated return receipt confirmation of the facsimile transmission received by the Office. Please check to make sure that the number of pages listed as received in Total Pages above matches what was intended to be sent. Applicants are advised to retain this receipt in the unlikely event that proof of this facsimile transmission is necessary. Applicants are also advised to use the certificate of facsimile transmission procedures set forth in 37 CFR 1.8(a) and (b), 37 CFR 1.6(f). Trademark Applicants, also see the Trademark Manual of Examining Procedure (TMEP) section 306 et seq.

### (EXHIBIT B)

Received  
Cover  
Page

=====>

NOV 08 2004 2:03 PM FR AGILENT TECHNOLOGIES 53 3063 TO 917838729306 P.01

AGILENT TECHNOLOGIES, INC.  
Legal Department, 01429  
Intellectual Property Administration  
P. O. Box 7599  
Loveland, Colorado 80537-0599

PATENT APPLICATION  
ATTORNEY DOCKET NO. 10004229-1

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Richard P. Schneider, et al.  
Serial No.: C9/680,726  
Filing Date: 10/5/2000  
Title: VCSEL Device With Improved Modal Properties

Examiner: Diaz, Jose R.  
Group Art Unit:

COMMISSIONER FOR PATENTS  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

(X) Response/Amendment ( ) Petition to extend time to respond  
( ) New fee as calculated below ( ) Supplemental Declaration  
( ) No additional fee (Address envelope to "Mail stop Non-Fee Amendments")  
( ) Other: (fee \$ )

CLAIMS ARE AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS	30	MINUS	20	= 10	X \$18	\$ 180
INDEP. CLAIMS	5	MINUS	4	= 1	X \$88	\$ 88
1 FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM						+ \$300
EXTENSION FEE	1ST MONTH \$110.00	2ND MONTH \$430.00	3RD MONTH \$880.00	4TH MONTH \$1530.00		\$ 110
OTHER FEES						\$
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$ 378

Charge \$ 378 to Deposit Account 50-1078. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 50-1078 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 50-1078 under 37 CFR 1.18, 1.17, 1.19, 1.20 and 1.21. A duplicate copy of this sheet is enclosed.

I hereby certify that the paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Date of Facsimile: 8 November 2004

Typed Name: Ann Marie Radcliffe  
Signature: Ann Marie Radcliffe

Respectfully submitted,  
Richard P. Schneider, et al.  
By: Pamela Lau Kee  
Pamela Lau Kee  
Attorney/Agent for Applicant(s)  
Reg. No. 36,184  
Date: 8 November 2004

PAGE 1/1 RCVD AT 11/07/04 6:17:06 PM [Eastern Standard Time] \* SVR:USPTO-EFAX-1/5 \* DNIS:8729306 \* CSID:408 553 3063 \* DURATION (mm-ss):02-24

AGILENT TECHNOLOGIES

JOB #002

DATE TIME TO/FROM MODE MIN/SEC PGS STATUS  
001 11/08 2:33P 917038729306 EC--S 02' 15" 009 OK

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P. O. Box 7599  
Loveland, Colorado 80537-0599

PATENT APPLICATION

ATTORNEY DOCKET NO. 10004229-1

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Richard P. Schneider, et al.

Serial No.: 09/680,726

Examiner: Diaz, Jose R.

Filing Date: 10/5/2000

Group Art Unit:

Title: VCSEL Device With Improved Modal Properties

COMMISSIONER FOR PATENTS  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

- (X) Response/Amendment ( ) Petition to extend time to respond  
( ) New fee as calculated below ( ) Supplemental Declaration  
( ) No additional fee (Address envelope to "Mail stop Non-Fee Amendments")  
( ) Other: \_\_\_\_\_ (fee \$ \_\_\_\_\_)

CLAIMS AS AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS	30	MINUS	20	= 10	X \$18	\$ 180
INDEP. CLAIMS	5	MINUS	4	= 1	X \$88	\$ 88
[ ] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ \$300	\$ 0
EXTENSION FEE	1ST MONTH \$110.00	2ND MONTH \$430.00	3RD MONTH \$980.00	4TH MONTH \$1530.00		\$ 110
OTHER FEES						\$
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$ 378

Charge \$ 378 to Deposit Account 50-1078. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 50-1078 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 50-1078 under 37 CFR 1.16, 1.17, 1.19, 1.20 and 1.21. A duplicate copy of this sheet is enclosed.

I hereby certify that this paper is being facsimile  
transmitted to the Patent and Trademark Office on  
the date shown below.

Date of Facsimile: 8 November 2004

Typed Name: Ann Marie Radcliffe

Signature: *Ann Marie Radcliffe*

Respectfully submitted,

Richard P. Schneider, et al.

By *Pamela Lau Kee*

Pamela Lau Kee

Attorney/Agent for Applicant(s)  
Reg. No. 36,184

Date: 8 November 2004



## UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

MAR - 1 2005

AGILENT LEGAL  
IPA

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/680,726

10/05/2000

Richard P. Schneider

10004229-1

2517

7590

02/24/2005

Agilent Technologies  
Legal Department 51U PD  
Intellectual Property Administration  
PO Box 58043  
Santa Clara, CA 95052-8043

MAR 21 2005

EXAMINER

DIAZ, JOSE R

ART UNIT

PAPER NUMBER

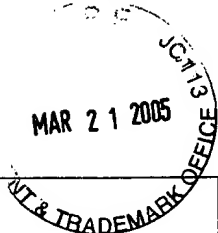
2815

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

(EXHIBIT C)

MAR 21 2005



# **Notice of Abandonment**

Application No.

09/680,726

Examiner

José R. Díaz

Applicant(s)

SCHNEIDER ET AL.

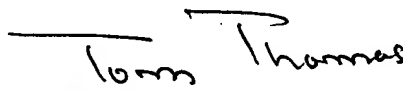
Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

This application is abandoned in view of:

1. ☒ Applicant's failure to timely file a proper reply to the Office letter mailed on 13 July 2004.
  - (a) ☐ A reply was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply (including a total extension of time of \_\_\_\_\_ month(s)) which expired on \_\_\_\_\_.
  - (b) ☐ A proposed reply was received on \_\_\_\_\_, but it does not constitute a proper reply under 37 CFR 1.113 (a) to the final rejection.  
(A proper reply under 37 CFR 1.113 to a final rejection consists only of: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114).
  - (c) ☐ A reply was received on \_\_\_\_\_ but it does not constitute a proper reply, or a bona fide attempt at a proper reply, to the non-final rejection. See 37 CFR 1.85(a) and 1.111. (See explanation in box 7 below).
  - (d) ☒ No reply has been received.
2. ☐ Applicant's failure to timely pay the required issue fee and publication fee, if applicable, within the statutory period of three months from the mailing date of the Notice of Allowance (PTOL-85).
  - (a) ☐ The issue fee and publication fee, if applicable, was received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the statutory period for payment of the issue fee (and publication fee) set in the Notice of Allowance (PTOL-85).
  - (b) ☐ The submitted fee of \$\_\_\_\_\_ is insufficient. A balance of \$\_\_\_\_\_ is due.  
The issue fee required by 37 CFR 1.18 is \$\_\_\_\_\_. The publication fee, if required by 37 CFR 1.18(d), is \$\_\_\_\_\_.
  - (c) ☐ The issue fee and publication fee, if applicable, has not been received.
3. ☐ Applicant's failure to timely file corrected drawings as required by, and within the three-month period set in, the Notice of Allowability (PTO-37).
  - (a) ☐ Proposed corrected drawings were received on \_\_\_\_\_ (with a Certificate of Mailing or Transmission dated \_\_\_\_\_), which is after the expiration of the period for reply.
  - (b) ☐ No corrected drawings have been received.
4. ☐ The letter of express abandonment which is signed by the attorney or agent of record, the assignee of the entire interest, or all of the applicants.
5. ☐ The letter of express abandonment which is signed by an attorney or agent (acting in a representative capacity under 37 CFR 1.34(a)) upon the filing of a continuing application.
6. ☐ The decision by the Board of Patent Appeals and Interference rendered on \_\_\_\_\_ and because the period for seeking court review of the decision has expired and there are no allowed claims.
7. ☐ The reason(s) below:

  
TOM THOMAS  
SUPERVISORY PATENT EXAMINER

Petitions to revive under 37 CFR 1.137(a) or (b), or requests to withdraw the holding of abandonment under 37 CFR 1.181, should be promptly filed to minimize any negative effects on patent term.



**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**